

reestablishing continuity in the layer of insulation in a reversible manner, wherein said material is polyisobutene.

56. (new) The electrical cable of claim 55 wherein said material has a 100 gram needle penetration value greater than 100 tenths of a millimeter at 25° C.

57. (new) The electrical cable of claim 55 wherein the conductor is formed by a plurality of wires stranded together.

58. (new) An electrical cable as set forth in claim 55 having empty spaces formed during or after a cable manufacturing process, but before installing the cable wherein the empty spaces formed prior to installation of the cable, during installation of the cable, and after the cable is placed in service, within said insulation layer and between said insulation layer and the conductor, contain the material which provides the cable with self-sealing properties.

59. (new) A method of making an insulated electrical cable having empty spaces formed during or after a cable manufacturing process, but before installing the cable which mitigates the effects of voids, punctures, or cracks formed in an insulation prior to installation of the cable, during an installation of the cable, and after the cable is placed in service comprising the steps of:

(a) forming a conductor

(b) applying a layer of dielectric material flowable at about 25° C. which provides self-sealing properties on the exterior of the conductor, wherein the material is polyisobutene; and

(c) forming an insulation layer around the conductor.

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60. (new) The method of claim 59 wherein the conductor is formed by a plurality of wires stranded together.

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61. (new) The method of claim 60 wherein said material has a 100 gram needle penetration value greater than 100 tenths of a millimeter at 25° C.

62. (new) The method of claim 59 wherein said material flows into voids, punctures, or cracks in the insulation formed prior to the installation of the cable.

63. (new) The method of claim 59 wherein said material flows into space between the conductor and the insulation formed prior to the installation of the cable.

64. (new) The method of claim 59 wherein said material flows into space between the conductor and the insulation formed during the installation of the cable.

65. (new) The method of claim 59 wherein said material flows into voids, punctures, or cracks in the insulation formed during the installation of the cable.

66. (new) The method of claim 59 wherein said material flows into voids, punctures, or cracks in the insulation formed after the cable is placed in service.

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67. (new) The method of claim 59 wherein said material flows into space between the conductor and the insulation formed after the cable is placed in service.

68. (new) The method of claim 59 including applying a water barrier material over the conductor before applying the self-sealing material in step (b).

69. (new) The method of claim 68 wherein the water barrier is a polymer sheet.

70. (new) A method for imparting to a cable comprising a conductor, at least one insulating layer, and a material having a capacity of self-repairing the at least one insulating layer, the method comprising providing the cable with an inner layer comprising said material having the capacity, upon creation of a discontinuity in the at least one insulating layer, of reestablishing a continuity in the at least one insulating layer in a reversible manner, and wherein the material is polyisobutene.

71. (new) The method according to claim 70 wherein the material is capable of at least partially filling the discontinuity without leaking from the cable in an uncontrolled manner.

72. (new) A method of manufacturing a cable having a layer of self-repairing material, which has a capacity, upon creation of a discontinuity in an insulating layer, of reestablishing continuity in the insulating layer in a reversible manner, comprising the steps of:

(a) depositing the self-repairing material, maintained in a fluid state, on a cable core; wherein the self-repairing material is polyisobutene, and

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